

# SUPPLY & START-UP of a PLANT for PIG MANURE FILTRATION & VOLUME REDUCTION

@ TORRE PALLAVICINA (Bergamo - Italy)

no. 1 **OB-SLURLESS 2x84"**

for the U.L. Cascina Le Tezze a Mattina  
of **Soc. Agr. CORTE ETRUSCA S.S.**



Soc. Agr. Corte Etrusca s.s.



Nutri2Cycle

The plant is **DEMO CASE** of the European Project  
“**Nutri2Cycle**” (Transition towards a more carbon and nutrient  
efficient agriculture in Europe H2020 – SFS 2016 -2017), of which  
the DiSAA – Ricicla Group of University of Milan is a partner



LOMBARDIA  
Cartina politica

PROVINCE

- Sondrio
- Como
- Lecco
- Bergamo
- Brescia
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- Monza
- Milano
- Lodi
- Pavia
- Cremona
- Mantova



July - November 2020

# CONTAINERIZED UNIT of PIG MANURE TREATMENT

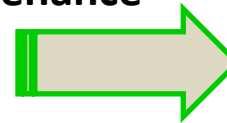
## N. 1 OB-SLURLESS 2x84"



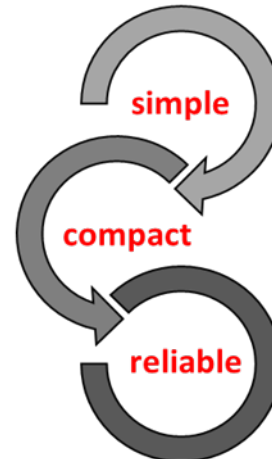
Nutri2Cycle

**Design, supply and start-up of a plant that:**

- is able to treat pig manure of different quality
- recovers clean water under thresholds for surface body discharge
- guarantees save of power consumption and maintenance
- is modular, compact and automatic
- accepts variations in feeding parameters



**FILTRATION  
TECHNOLOGY in 3  
Stages of reverse  
osmosis  
OB-SLURLESS with  
vibrating membrane  
VSEP**



**V<sup>+</sup>SEP<sup>®</sup>**  
Industrial Fluid Separation

# The Cascina Le Tezze site (up to 15,000 pigs feeding)



Soc. Agr. Corte Etrusca s.s.

Le Tezze  
(before new revamping)



The existing area for the installation of the new plant OB-SLURLESS 2x84"

The farm



The storage tanks of the pig manure

# OB-SLURLESS 2x84" – plant erection



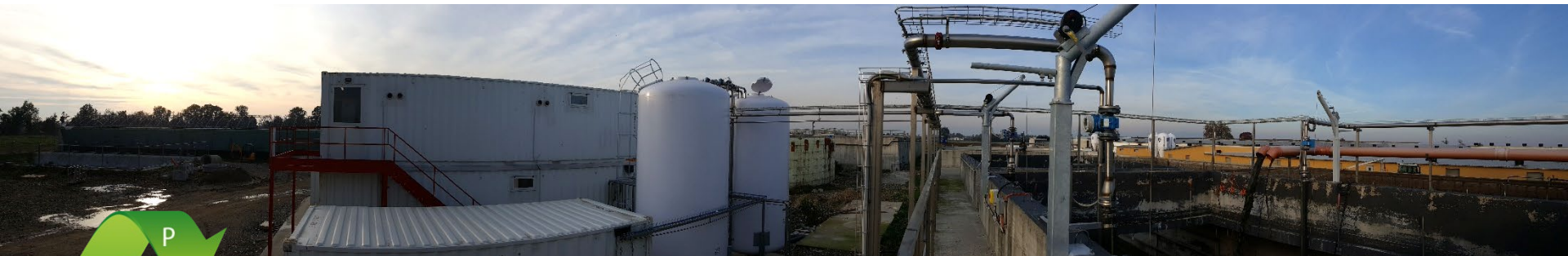
...from freight to positioning...



...up to the complete installation

Industrial pig manure treatment – Soc. Agr. Corte Etrusca S.S. - Italy

# OB-SLURLESS 2x84" – installation



Nutri2Cycle



Industrial pig manure treatment – Soc. Agr. Corte Etrusca S.S. - Italy

# OB-SLURLESS 2x84" – installation



**Solid/liquid  
pre-treatment**



**Screened solids**

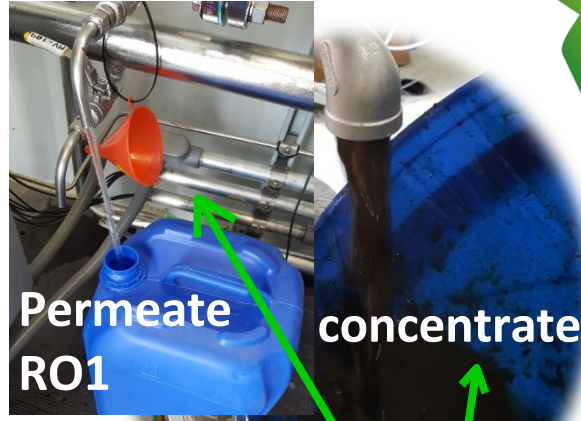


**stage RO1 -  
vibrating**



**2° & 3° stage  
RO2/RO3 - spiral**

# OB-SLURLESS 2x84" – performances



**Solid fraction**

Flow-rate	80 to 110 m <sup>3</sup> /d
Solid fraction	10%
Permeate	60-70% liquid fract.
Concentrate	30-20% liquid fract.
Average power consumption	24-40 kWh
Water quality (surface body discharge)	Tab. 3, All. 5, Part III, D. Lgs 152/2006

**Final Permeate to surface body disposal and N-NH<sub>4</sub> control with probe**



# OB-SLURLESS 2x84" – funding



MINISTERO DELL'AMBIENTE  
E DELLA TUTELA DEL TERRITORIO E DEL MARE



Regione  
Lombardia

Impianto finanziato dall' **“Azione regionale volta alla riduzione delle emissioni prodotte dalle attività agricole”**

D.D.S. n. 7695 del 04 giugno 2019

*Tipologia di intervento:*

“Impianto di trattamento di effluenti/digestato con recupero di elementi nutritivi a scopo fertilizzante tramite concentrazione”

CUP E83B19000500003



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Modello di Impianto:

**OB-SLURLESS 2x84”**

matr. OB 19.19

anno di realizzazione: 2020

